

USGS-NPS Vegetation Mapping Program
Badlands National Park

Eleagnus angustifolia Semi-natural Woodland

COMMON NAME Russian Olive Semi-natural Woodland
SYNONYM Russian Olive Woodland
PHYSIOGNOMIC CLASS Woodland (II)
PHYSIOGNOMIC SUBCLASS Deciduous woodland (II.B)
PHYSIOGNOMIC GROUP Cold-deciduous woodland (II.B.2)
PHYSIOGNOMIC SUBGROUP Natural/Semi-natural (II.B.2.N)
FORMATION Cold-deciduous woodland (II.B.2.N.a)
ALLIANCE ELAEAGNUS ANGUSTIFOLIA SEMI-NATURAL WOODLAND ALLIANCE
CLASSIFICATION CONFIDENCE LEVEL 3
USFWS WETLAND SYSTEM Terrestrial

RANGE

Badlands National Park

Only one stand of Russian olive woodland was observed, along the White River in the South Unit, near the Visitor Center.

Globally

The type is currently reported from western South Dakota, in Badlands National Park, but it is undoubtedly more widespread.

ENVIRONMENTAL DESCRIPTION

Badlands National Park

The Russian olive woodland occupies a portion of shoreline along the White River, upstream of a highway bridge.

Globally

In Badlands National Park, this type occupies a portion of shoreline along the White River, upstream of a highway bridge.

MOST ABUNDANT SPECIES

Badlands National Park

<u>Stratum</u>	<u>Species</u>
Tree	<i>Elaeagnus angustifolia</i>
Shrub	<i>Amorpha fruticosa</i> , <i>Salix exigua</i>
Herbaceous	<i>Pascopyrum smithii</i>

Globally

<u>Stratum</u>	<u>Species</u>
Tree Canopy	<i>Elaeagnus angustifolia</i>
Shrub	<i>Amorpha fruticosa</i> , <i>Salix exigua</i>
Graminoid	<i>Pascopyrum smithii</i>

CHARACTERISTIC SPECIES

Badlands National Park

Elaeagnus angustifolia, *Salix exigua*, *Pascopyrum smithii*

Globally

Elaeagnus angustifolia, *Pascopyrum smithii*, *Salix exigua*

OTHER NOTABLE SPECIES

VEGETATION DESCRIPTION

Badlands National Park

The Russian olive semi-natural woodland occupies a portion of the riparian zone along the White River. Russian olive (*Elaeagnus angustifolia*) dominates the stand. Canopy closure approaches 40-50%, about equal to the tall shrub cover provided by sandbar willow (*Salix exigua*). Lead plant (*Amorpha fruticosa*) and western wheatgrass (*Pascopyrum smithii*) make up the short shrub and herbaceous cover, which are less than 10%.

Globally

In Badlands National Park of South Dakota, the Russian olive semi-natural woodland occupies a portion of the riparian zone along the White River. *Elaeagnus angustifolia* dominates the stand. Canopy closure approaches 40-50%, about equal to the tall shrub cover provided by *Salix exigua*. *Amorpha fruticosa* and *Pascopyrum smithii* make up the short shrub and herbaceous cover, which are less than 10%.

CONSERVATION RANK GW.

DATABASE CODE CEGLO05269

MAP UNITS The Russian olive woodland is mapped under map class 41, Eastern cottonwood - (Peachleaf willow) / Sandbar

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willow woodland.

SIMILAR ASSOCIATIONS

COMMENTS

Badlands National Park

Russian olive is becoming established along rivers and perennial streams within Badlands NP and the region. This exotic tree is probably being spread by birds that carry the seeds from landscape plantings and windbreaks in agricultural areas. Only one large stand was observed along the White River and it is represented by plot data.

Globally

Elaeagnus angustifolia is often planted for windbreaks and ornamental purposes, and is now firmly established in the Great Plains. It thrives on dry to moist soils of all types, especially on sandy floodplains (Great Plains Flora Association 1986). It is becoming established along rivers and perennial streams within Badlands National Park, South Dakota, and the region. This exotic tree is probably being spread by birds that carry seeds from landscape plantings and windbreaks in agricultural areas (Von Loh *et al.* 1999).

REFERENCES

Great Plains Flora Association. 1986. Flora of the Great Plains. University of Kansas Press, Lawrence. 1392 pp.
Von Loh, J., D. Cogan, D. Faber-Langendoen, D. Crawford, and M. Pucherelli. 1999. USGS-NPS Vegetation Mapping Program, Badlands National Park, South Dakota (Final Report). Technical Memorandum No. 8260-00-02. U.S. Bureau of Reclamation Technical Service Center. Denver Colorado.